

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF PHYSICAL SCIENCES
DEPARTMENT OF GEOGRAPHY

SECOND SEMESTER 2019/2020 SESSION UNDERGRADUATE EXAMINATION

COURSE CODE: GRY 542

CREDIT UNIT: 2

COURSE TITLE: Planetary Atmospheres

INSTRUCTIONS: Answer any three (3) questions.

TIME ALLOWED: 2 Hours

1. Write on any two (2) of the following future prospects for human space exploration missions:
 - i. The Role of Nuclear Power and Nuclear Propulsions
 - ii. Antimatter Rockets
 - iii. Space Medicine
2. Discuss the physical characteristic of any two (2) of the following planets and assess their potentials, with respect to supporting lifeforms:
 - i. Mercury
 - ii. Saturn
 - iii. Uranus
3. Discuss the reasons for the struggles between the Western Capitalist nations and the major Communist nations of the world in their individual efforts to monopolize the Outer Space.
4. Explain why the:
 - i. Planet Mercury and the Earth's Moon have similar surface appearances
 - ii. Near-Side and the Far-Side of the Earth's Moon exhibit contrasting physical appearances, as seen from acquired images
5. Discuss the physical properties of **any three (3)** of the following components of the Solar Atmosphere:
 - i. Photosphere
 - ii. Chromosphere
 - iii. Corona
 - iv. Solar Wind